CLAIMS

1. An apparatus for managing a translation mechanism in a processor architecture comprising:

an execution unit for generating an effective address;

5   a translator, wherein the translator at least translates an effective address into a real address, wherein if a translation is at least not available, then the real address is unavailable;

a miss manager, wherein the miss manager is at least

10 configured to manage unavailable real addresses from the means for translating;

means for pre-loading translation data; and

a storage means, wherein the storage mean at least stores a plurality of general data wherein the plurality of

15 general data is at least referenced by real addresses.

2. The apparatus of Claim 1, wherein the storage means further comprises a page table, wherein the page table is configured to at least provide a plurality of references to

20 the plurality of general data.

3. The apparatus of Claim 2, wherein the means for pre-loading further comprises a communication channel between the page table and the translator.

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4. The apparatus of Claim 3, wherein the translation mechanism further comprises a software manager coupled to the translator.

5   5. The apparatus of Claim 4, wherein the software manager further comprises:

a data port for transporting data there between;

an index table for supplying index data to the translator; and

10   means for providing management of the means for pre-loading.

6. The apparatus of Claim 4, wherein the translation mechanism further comprises a hardware manager coupled to

15   the translator.

7. The apparatus of Claim 6, wherein the hardware manager further comprises:

a data port for transporting data there between;

20   an index table for supplying index data to the means for translating; and

means for providing management of the means for pre-loading.

25   8. The apparatus of Claim 4, wherein the translation mechanism further comprises a hardware manager coupled to

the translator, wherein the hardware manager further comprises a means for providing management of the means for pre-loading.

5   9. The apparatus of Claim 8, wherein the hardware manager further comprises:

a data port for transporting data therebetween; and

an index table for supplying index data to the translator.

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10. The apparatus of Claim 4, wherein the translation mechanism further comprises a hardware manager coupled to the translator, wherein the hardware manager further comprises a means for providing a least partial management

15   of the means for pre-loading.

11. The apparatus of Claim 10, wherein the hardware manager further comprises:

a data port for transporting data there between;

20   an index table for supplying index data to the means for translating; and

means for providing at least partial management of the means for pre-loading.

25   12. A method for managing a translation mechanism in a processor architecture comprising:

generating an effective address;

translating an effective address into a real address, wherein if a translation is at least not available, then the real address is unavailable;

5   managing unavailable real addresses from the step of translating;

pre-loading unavailable data; and

accessing a plurality of stored general data wherein the plurality of stored general data is at least referenced

10   by real addresses.

13. The method of Claim 12, wherein the step of accessing further comprises accessing a page table, wherein the page table is configured to at least provide a plurality

15   of references to the plurality of general data.

14. The method of Claim 13, wherein the step of pre-loading further comprises utilizing a communication channel between the reference table and a translator.

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15. The method of Claim 14, wherein step of translation further comprises at least utilizing a software manager coupled to the translator.

25   16. The method of Claim 15, wherein the step of at least utilizing the software manager further comprises:

transporting data through a data port;

supplying index data from an index table to the translator; and

providing management of the means for pre-loading.

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17. The method of Claim 15, wherein the translation mechanism method further comprises at least utilizing a hardware manager coupled to the translator.

10   18. The method of Claim 17, wherein the step of at least utilizing software management means further comprises:

transporting data through a data port;

supplying index data from an index table to the translator; and

15   providing management of the means for pre-loading.

19. The method of Claim 15, wherein the step of translation further comprises at least utilizing a hardware manager coupled to the translator, wherein the hardware

20 management means further comprises a means for providing management of the means for pre-loading.

20. The apparatus of Claim 19, wherein the utilized hardware management means further comprises:

25   transporting data through a data port;

supplying index data from an index table to the translator.

21. The method of Claim 15, wherein the step of translating further comprises:

at least utilizing a hardware manager coupled to the translator; and

at least providing a least partial management of the means for pre-loading.

22. The apparatus of Claim 21, wherein the software management means further comprises:

transporting data through a data port;

supplying index data from an index table to the translator; and

providing management of the means for pre-loading.

23. A computer program product for managing a translation mechanism in a processor architecture, the computer program product having a medium with a computer program embodied thereon, the computer program comprising:

computer program code for transporting data through a data port;

computer program code for supplying index data from an index table to the translator; and

computer program code for providing management of the means for pre-loading.

24. A processor for managing a translation mechanism,
5   the processor including a computer program comprising:

computer program code for transporting data through a data port;

computer program code for supplying index data from an index table to the translator; and

10   computer program code for providing management of the means for pre-loading.

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